

IN THE CLAIMS:

Claims 1-2: (Cancelled)

Claim 3 (Currently Amended): Process for the preparation of nano size zinc oxide gels ~~according to Claim 1 by~~ particles having an average primary particle diameter of  $\leq 15$  nm, determined in a transmission electron micrograph, which are redispersible in organic solvents and/or water, comprising

- 16
- a) carrying out basic hydrolysis of at least one zinc compound in alcohol or an alcohol/water mixture, characterized in that wherein the hydrolysis is carried out with substoichiometric amounts of base, based on the zinc compound, to form a precipitate;
  - b) leaving the precipitate which initially forms during hydrolysis is left to mature until the zinc oxide has completely flocculated,
  - c) then this thickening the precipitate is thickened to give a gel; and
  - d) separated off separating the gel from the supernatant phase.

Claim 4 (Currently Amended): ~~Process for the preparation of zinc oxide gels according to Claim 2 by basic hydrolysis of at least one zinc compound in alcohol or an alcohol/water mixture, characterized in that the precipitate which initially forms during hydrolysis is left to mature until the zinc oxide has completely flocculated, then this precipitate is thickened to give a gel and separated off from the supernatant phase and that,~~ The process of Claim 3, wherein prior to, during or after precipitation, from 0.01 to 3 mol% of foreign ions, based on proportion of zinc, are added.

Claim 5 (Currently amended): Process according to ~~one or more of claims~~ Claim 3 and 4, characterized in that wherein the zinc compound is comprises at least one of zinc acetate and/or and zinc acetate dihydrate.

Claim 6 (Currently amended): Process according to Claim 5, ~~characterized in that~~ wherein the at least one of zinc acetate and/or and zinc acetate dihydrate is prepared from zinc oxide in an upstream process.

Claims 7-10: (Cancelled)

Claim 11 (Currently Amended): ~~Process for the preparation of zinc oxide sols according to one or more of the preceding Claims 8 to 10, characterized in that zinc oxide gels according to Claim 1 or 2 are~~ The process of Claim 3, wherein the gel is redispersed in organic solvents and/or water, optionally with the addition of surface-modifying compounds.

ab Claim 12 (Currently Amended): ~~Process for the preparation of zinc oxide sols according to Claim 9 by basic hydrolysis of at least one zinc compound in alcohol or an alcohol/water mixture, characterized in that the precipitate which initially forms during hydrolysis is left to mature until the zinc oxide has completely flocculated, and this precipitate is~~ The process of Claim 3, wherein the gel is redispersed by adding dichloromethane and/or chloroform.

Claim 13 (Currently Amended): ~~Use of zinc oxide gels according to Claim 1 and 2 for~~ Method of performing the matrix modification of polymers, paint and coatings, as an ~~improved vulcanization activator for rubbers and latices, for the UV protection of polymers, paints and coatings, and for the UV protection of sensitive organic dyes and pigments~~ comprising adding the gel according to Claim 3 to the polymers, paints and coatings.

Claim 14 (Cancelled)

Claim 15 (New): Method of producing a vulcanization activator for rubbers and latices, comprising adding the gel according to Claim 3 to the rubbers and latices.

a7 Claim 16 (New): Method of protecting polymers, paints and coatings from UV, comprising adding the gel according to Claim 3 to the polymers, paints and coatings.

Claim 17 (New): method of providing UV protection of sensitive organic dyes and pigments, comprising adding the gel according to Claim 3 to the dyes and pigments.